DOCUMENT RESUME

ED 134 261 JC 770 101

AUTHOR Moore, George R.
TITLE The Economic Impact of Chemeketa Community College on the Local Economy.
INSTITUTION Chemeketa Community Coll., Salem, Oreg.
PUB DATE 15 Apr 75
NOTE 20p.

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS *Community Benefits; Community Colleges; *Economic Research; Educational Economics; Expenditures; *Junior Colleges; Salaries; *School Community Relationship; School District Spending
IDENTIFIERS Chemeketa Community College; Economic Impact Studies

ABSTRACT

The purpose of this report was to inform the community of the effect of Chemeketa Community College on the local economy. Considered in this analysis of the college's economic relationship to its district were employee salaries, local capital and service expenditures of the college, and local expenditures by staff and students for housing rental and other personal expenses. Results of analysis of this expenditure information revealed that the college had a direct estimated economic impact during 1973-74 of $14,024,596. Since expenditures by one party become disposable income for another party, a multiplier effect occurs. Using an expenditure multiplier of 1.9, a conservative figure as indicated in the economic literature, the total direct estimated economic impact of the college on the local economy during 1973-74 was $26,646,732. An explanation of the multiplier effect and a short bibliography are appended. (JDS)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

ED134261

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

The Economic Impact of Chemeketa Community College on the Local Economy

Dr. George R. Moore
Coordinator, Institutional Development

Chemeketa Community College
4000 Lancaster Drive NE
P. O. Box 1007
Salem, Oregon 97308

April 15, 1975

JC 750 101

Acknowledgments

This report was made possible, in large measure, because of the suggestions, guidelines, recommendations, and contributions of Mr. Don Steward, State of Oregon Employment Division; the office of the Marion County Tax Assessor; the Salem Apartment Association; and the following members of the College: Mr. Brian Hardin, Chief Accountant; Mrs. Judy Woelk, Personnel; Mr. George Strozut, Chairman, Board of Education; Mr. Stan Davey, Physical Plant Manager; Mr. Ray Welch, Adult Education; and Mr. Jim Ryan, Director of Financial Aid.

I do appreciate the cooperation of these individuals and organizations as well as the secretarial support of Miss Cheryl Rice.

TABLE OF CONTENTS

Acknowledgments i

INTRODUCTION 1

Purpose 1

Conceptual Focus 2

GENERAL IMPACT CONSIDERATIONS 3

Ancillary Aspects 4

Taxes and Public Services 4

Institutional Revenues and Expenditures 5

DIRECT AND INDIRECT IMPACT ASPECTS 8

Staff Residence 8

Student Residence 8

Staff Expenditures 9

Student Expenditures 9

The Multiplier Effect 10

SUMMARY 13

Appendix A 14

References 16

INTRODUCTION

All institutions of higher education make economic contributions to the communities in which they are located. However, institutions of higher education have generally not been held accountable to a local economy on economic criteria. Traditionally, the criteria for accountability have been rather idealistic goals and prestige. These criteria have generally eluded objective evaluation (Brown, 1970). As the cost of higher education increases, and resources become increasingly limited, other criteria have become important. The use of education in the world of work and the economic impact of higher education on a community are two criteria of present value.

Purpose

The purpose of this report is to inform the community about the effect of Chemeketa Community College on the local economy. In a sense, it is a form of accountability. Specifically, this inquiry attempts to clarify some significant aspects of the economic relationships between the College and the District and to present quantitative information regarding such relationships. The major portion of this report deals with the impact of the College-related expenditures on the local economy. The minor sections of this report presents information about the College's source of revenue, taxes, and budget--all of which are not primary impact items but which contribute to a more complete picture of the impact of the College on the local economy.

As the reader becomes involved in the economic data, it should be remembered that the primary objective of a community college is to meet the educational needs of the community which it serves. The College was not founded as a way of directly bolstering the local economy, although it might make an area a more attractive place in which to live and work. Thus, this report takes a step toward describing the economic impact of the College on the community while it fulfills its objective.

Conceptual Focus

There are a variety of factors which impinge on the values with which this report is concerned. This makes an exact categorization of the many variables exceedingly difficult. Consequently, many values appearing in this report have by necessity been derived indirectly or estimated. When this procedure has been required, any erring has been in a conservative direction. Only the economic impact that is directly attributable to the College rather than both directly and indirectly attributable is considered by this report. Therefore, the magnitude of the College-related economic impact on the District is at least as great as is indicated in this report.

The single reason for the residence of some College faculty, staff and students is the existence of the College; the residence of other College-associated individuals has no relationship to the existence of the College. Therefore, the expenditures of only those persons who would not be residing in the District if the College did not exist are considered. For purposes of this report, it is assumed that full-time faculty and students residing in the

District are doing so as a direct result of the existence of the College. It is also assumed that the existence of the College has no influence on the residence of part-time staff and students, i.e., if the College did not exist, these individuals would still be residing in the District. This assumption rests on the fact that almost all part-time faculty members and students are locally employed full-time or are the spouse of a locally employed individual. Due to the demand for skilled employees, staff employees, especially those with secretarial/clerical skills, could be employed elsewhere in the District if the College did not exist. In addition, reflecting a conservative approach to estimation, those students enrolled in non-college credit programs are not included as it is assumed those individuals would not have left the District to acquire education or training. However, the direct relationship between the increased education and training resulting in increased income and the "ripple" effect of the expenditure of this increased income on the District should be noted.

As this report is concerned only with those expenditures that are a continuing contribution to the District's economy, excluded from consideration are housing expenditures of College-affiliated individuals who are homeowners because such expenditures are savings, i.e., an investment rather than a "goods or services" expenditure. Finally, no attempt is made to assess the extent of personal savings in terms of equity in automobiles, property and financial assets (e.g., stocks and bonds) or liquid financial assets (e.g., checking and saving accounts).

GENERAL IMPACT CONSIDERATIONS

Some higher education institutions operate services which

duplicate those existing in the business community; Chemeketa Community College does not. If the College were a residential college with its own food service, then certain local business volume would be unrealized. However, with no housing facilities, the College can only help to increase demand by students for local housing and food.

Ancillary Aspects

The only College enterprise which conceivably could be considered to be in competition with local business is the College bookstore. However, the largest item in sales by far is textbooks. Of the $276,047 sales volume for fiscal year 1973-74, $200,188 was textbook sales and $75,859 was College supplies sales. It must be remembered that the objective of the bookstore is to provide to students a reliable source of textbooks and that the bookstore operation is a self-supporting service.

Taxes and Public Services

The public-school-attending children of the College affiliated persons induce a financial load on the property taxpayers of the District, as do all public-school-attending children. Respecting the relative economic impact, the pertinent question becomes, "are the College-affiliated individuals with public-school-attending children paying their proportionate share of property taxes?" Since the property tax is closely related to income, and with most College-affiliated individuals being in a middle-income bracket, in all likelihood these individuals are paying this proportionate or more than their proportionate share of property taxes.

The only apparent negative economic impact that the College

causes is the unrealized property taxes foregone as a result of the College's tax-exempt status. Based upon local opinions, the assessed value of the College-owned land may be $997,100 (estimating $6,500 per acre) or as high as $1,534,000 (estimating $10,000 per acre) if a current appraisal were completed. If not tax-exempt, this land, 153.4 acres, would be subject to a millage rate of 22.90. Thus, the unrealized property tax for liability on this land for 1974 would probably be between $22,833 and $35,128 depending upon the assessed value. However, if one accepts the premise that public, non-profit institutions (e.g., schools, churches,and hospitals) should not pay taxes, then one may not consider the unrealized property taxes as a negative impact. With respect to public services, the College does receive fire and (limited) police protection from Marion County plus the State Police of Oregon. The cost of water, sewage and refuse disposal is borne by the College.

Institutional Revenues and Expenditures

Although this report is concerned with discrete estimations of the economic impact of expenditures, a look at the total College salary expenditures for fiscal year 1973-74 places in "graphic" relief the magnitude of the impact which the College holds for the District.

For 1973-74, assuming the average number of employees to be 687, the gross salary expenditure was $3,644,443 and the net salary income was $2,498,922. The net salaries represent 68.6 percent of the gross salaries. If one applies the national average that 93 percent of the disposable income represents consumption expenditures

while seven percent represents savings, the flow of the net disposable college employees' incomes of $2,498,922 would be $2,323,998 for consumption expenditure and $174,924 for savings.

The capital expenditures that the College has made for construction and equipment for the campus, although not an expenditure item which is a continuous contribution to the District's economy, should be noted. For 1973-74, the College received $1,354,957 from the state and $571,900 from the District. For the same time period, the College expended $2,242,643 on the construction, modification, or maintenance of campus buildings and $547,147 on equipment. Virtually all expenditures were made locally to procure services and goods.

As additional insight into the College's economic status, a review of the revenue and expenditure categories of the College's 1973-74 operating budget is of interest. This information for revenue, excluding fund transfers, and expenditures is presented on the following page.

1973-74 College Operating Budget

Revenue			Expenditures		
Source	Amount	Percent	Type	Amount	Percent
Federal	$1,140,156	13	Salaries	$3,644,443	39
State	$3,439,195	39	Materials & Services	$2,823,171	30
Tuition & Fees	$ 936,183	11	Capital Outlay	$2,843,192	31
Local	$2,749,050	31			
Other*	$ 523,514	6			
Total	$8,788,098**	100	Total	$9,310,806	100

* Interest, rents, bookstore and cafeteria income, and vending machines.

** Should add $2,413,947 for accounts, grants, and taxes receivable because the College's accounting system is in a modified accrual basis.

DIRECT AND INDIRECT IMPACT ASPECTS

As was previously mentioned, only the expenditures of those college-associated individuals who can be assumed to be residing in the District solely because of the existence of the College are considered in this report. The following narrative information about College-associated individuals describes the procedures used to arrive at the tabular materials presented in the last part of this report.

Staff Residence

By reviewing the mailing addresses of the 687 College staff, the average number of individuals employed during 1973-74, it was determined that the College employed 14 full-time staff members who resided outside of the District, thus being defined as "non-local." Of the 673 staff who resided in the District, it was determined that 32 of these individuals resided in apartments.

Student Residence

Of the 2,385 full-time students enrolled during the 1974 Fall quarter, it was determined by a review of mailing addresses that 2,260 resided in the District and 125 students were non-local residents. However, of these 125 non-local residents, 40 were assumed to reside in the District due to the fact that their legal residence was beyond commuting distance to the College. Of the 2,260 local full-time students, it was determined that 282 resided in apartments. By referencing the student's address with his or her parents address, it was estimated that 1,000 of the 1,978 local non-renting full-time students resided with their parents.

Staff Expenditures

For the immediate Salem area, an average rental rate of $150 per month for a two-bedroom unfurnished apartment was derived (Salem Apartment House Association). Given the average gross salary of $12,356 for a full-time faculty member employed on a 9-10 month contract with a net income of $9,119 (73.8 percent of gross) and a consumption of $8,481 (93 percent of net income), this figure approximates the $9,761 consumption for a four-person family with an intermediate budget residing in non-metropolitan areas in the west in the autumn of 1973 (Monthly Labor Review; August, 1974). Assuming monthly mortgage principal and interest payment of home-buying full-time faculty to average $235 by subtracting $2,820 for housing from the $8,481 consumption, one derives $5,661 for the annual non-housing expenditure. Local expenditures of non-local full-time faculty are exceedingly difficult to estimate due to the great individual variance. However, this expenditure may be estimated (Monthly Labor Review; August, 1974) to be comprised of food ($400), transportation ($230), clothing ($220), medical care ($150) for a total expenditure of $1,000.

Student Expenditures

To determine the average expenditure for local rental housing, one has to consider the married student as well as single students sharing an apartment. Utilizing the Office of Financial Aid student budget data, monthly rental expenditure was estimated to be $150 or $1,350 for the nine months (September-June) of the academic year. The per student expenditure for the academic year of a full-time

student living with his or her parent(s) was estimated, utilizing office of Financial Aid data, to be $950 ($450 for personal expenses and $500 for transportation). Independent students residing locally were estimated to spend individually $2,294 during the academic year for non-housing expenditures. This figure was comprised of the following components, using data from the office of Financial Aid; food ($908), personal expenses ($720) and transportation ($666). The non-local commuting full-time student was estimated to make the following expenditures; food ($594), personal expenses ($450), and transportation ($500) for a total of $1,544 during the academic year.

The Multiplier Effect

In the economic cycle, expenditures by one party are income to another party. Thus, additional consumer spending becomes additional consumer income to someone, e.g., workers, landlords, lenders, owners. As was previously mentioned, the expenditure rate for disposable income in the United States is 93 percent. Therefore, most of this additional consumer income is respent--some of it locally, some of it non-locally. Thus the impact of local expenditures is "multiplied." Assuming a region is relatively self-sufficient, Caffery and Issacs (Estimating the Impact of a College or University on the Local Economy, 1971) suggest using an expenditure multiplier of 1.9. As a supplemental indicator of reliability, the Wharton Economic Forecasting Unit of the University of Pennsylvania has over time derived expenditure multiplier values from 1.91 to 2.35 with most values in the 1.91 to 2.13 range. So, in conclusion, for the Chemeketa District an expenditure multiplier of 1.9 is apparently valid, if somewhat conservative. The following tabular information indicates the

estimated economic impact for 1973-74 of the College on the local economy and reports on the likely impact of the multiplier effect.

Estimated Economic Impact for 1973-74

Expenditure Item	Per Person	Number of Persons	Total
1. Local expenditure* by the COLLEGE for materials and services and capital outlay			$ 5,666,363
2. Expenditures by local full-time STAFF for local rental housing	$2,820	32	$ 90,240
3. Local non-housing expenditures by local STAFF	$5,661	673	$ 3,809,853
4. Local expenditures by non-local STAFF	$1,000	14	$ 14,000
5. Expenditures by full-time STUDENTS for local rental housing	$1,350**	282	$ 380,700
6. Local expenditures, exclusive of room and board, by full-time STUDENTS living with parents	$ 950**	1,000	$ 950,000
7. Local non-housing expenditures by local independent STUDENTS	$2,294**	978 not renting 282 renting	$ 2,890,440
8. Local non-housing expenditures by non-local full-time STUDENTS residing locally	$2,294**	40	$ 91,760
9. Local expenditures by non-local commuting full-time STUDENTS	$1,544**	85	$ 131,240
TOTAL ONE-TRANSACTION IMPACT			$14,024,596
Expenditure multiplier			1.9
FULL ESTIMATED IMPACT			$26,646,732

* Non-local expenditure by the College for fiscal year 1973-74 was $430,938. This expenditure was for employee retirement matching ($231,226) and social security contributions ($199,712).

** Expenditure for the nine-month academic year.

SUMMARY

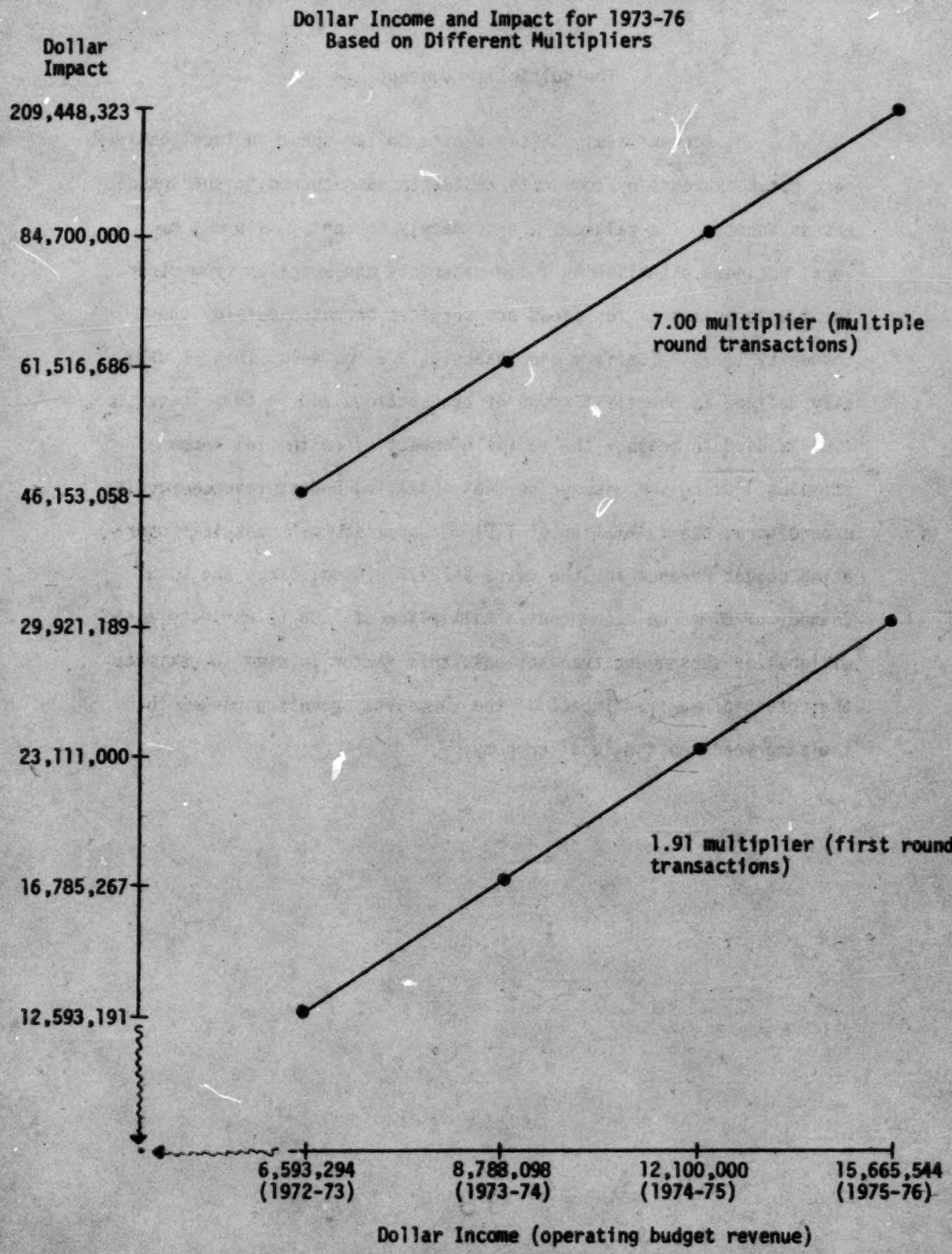
The introductory section of this report indicates that institutions of higher education have generally not been held accountable to a local economy on economic criteria. However, as the cost of higher education increases, while resources become increasingly limited, the criterion of economic impact begins to receive careful scrutiny. Consequently, the purpose of this report is to inform the community about the effect of Chemeketa Community College on the local economy.

With this objective in mind, our economic information reveals that the College in 1973-74 employed, on the average, 687 individuals--a payroll which is estimated to result in $2,323,998 for consumption expenditure in the District. In addition, Chemeketa Community College spent $2,242,643 on the construction, modification, or maintenance of campus facilities--and virtually all these expenditures were made locally. Thirdly, the College is estimated to have a <u>full</u> economic impact on the local economy of $26,646,732 when the multiplier effect is considered.

Finally, while recognizing that the scope and method of this inquiry is limited, it is hoped that this initial report conveys some of the ways in which the College contributes to the economic growth of the District.

The Multiplier Concept

" . . . Approximately 35 cents of a dollar spent in local business establishments by community residents is returned to the spenders as income. The balance, approximately 65 cents, is spent by local business establishments for materials and supplies from other local enterprises or for goods and services produced outside the community . . . " (Caffery and Isaacs: 1972, p. 44). This is usually defined as the first round of transactions and in this instance 1.91 is used to measure the multiple impact of an initial income stimulus. Using the assumption that operating budget revenue equals expenditure, the multiplier of 1.91 was applied to Chemeketa's operating budget revenue for the years 1972-76. Also, since the U. S. Chamber of Commerce recommends a multiplier of 7.00 to estimate additional or subsequent transactions, this factor is used to estimate the potential maximum impact of the Chemeketa operating budget for the same years on the local economy.


Dollar Income and Impact for 1973-76
Based on Different Multipliers
Dollar Impact
209,448,323
84,700,000
61,516,686
46,153,058
29,921,189
23,111,000
16,785,267
12,593,191
7.00 multiplier (multiple round transactions)
1.91 multiplier (first round transactions)
6,593,294 (1972-73)
8,788,098 (1973-74)
12,100,000 (1974-75)
15,665,544 (1975-76)
Dollar Income (operating budget revenue)

REFERENCES

Brown, D. G., A Scheme for measuring the output of higher education. In Lawrence, B., Weathersby, G. and Patterson, V. W. (Eds.), Outputs of higher education: Their identification, measurement, and evaluation. Boulder, Colorado: W.I.C.H.E., 1970.

Caffrey, John. Estimating the Impact of a College or University on the Local Economy. Washington, D. C.: American Council on Education, 1971.

McLaughlin, Gerald W. and James Montgomery. Research Needs of Community Colleges. September, 1972.

McLaughlin, Gerald W. and James Montgomery. Economic Impact of U.P.I. and State University on the Community. Institutional Research, U.P.I. and State University, Blacksburg, Virginia, September, 1971.

Segas, James, Sailssy, John, and Blocker, Clyde. The Impact of the College on the Local Economy. Harrisburg Community College, 1973.

Stuckmare, Jeffrey A., Local Economic Impact of the Florida Junior College at Jacksonville, February, 1974.

Taylor, Graham C. and Byrden, John P., Industrial Economics Division, Denver Research Institute, The Economic Impact of the University of Denver on the State of Colorado, University of Denver, September, 1973.

U. S. Department of Labor, Bureau of Labor Statistics, Monthly Labor Review, August, 1974.

Webb, Morris S., How to convince taxpayers they've got a sound investment. American Vocational Journal, October, 1974.

UNIVERSITY OF CALIF.
LOS ANGELES

MAR 1 1 1977

CLEARINGHOUSE FOR
JUNIOR COLLEGES